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May 16, 1997

Richard Woodard
CALFED Bay-Delta Program
Water Quality Technical Group
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Dear Rick:

2005
New

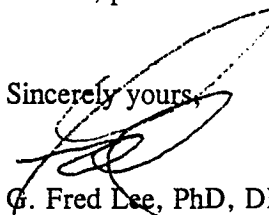
A recent presentation on Channel 3 concerning the aquatic weed growth problems in the Delta is prompting me to contact you to urge that aquatic plant nutrients that lead to excessive fertilization of the Delta be considered as "constituents of concern" that need to be evaluated. The excessive fertilization of waterbodies is an area that I have worked on throughout my over 35-year professional career. When I returned to California in 1989 to work on Delta water quality issues, I found that the Delta was excessively fertile compared to waterbodies in many other parts of the country where eutrophication problems are of concern. My own visual inspection of the Delta waters at various locations showed that there were excessive growths of attached algae and various kinds of water weeds that would be judged to be excessive in many other areas based on their adverse impacts on recreational use. It also impaired the use of the Delta as a domestic water supply. When I reviewed this situation with various water utilities that used Delta waters, it became clear that this fertility extended to more than just an aesthetic problem associated with impairing the use of the Delta for recreational purposes.

I was surprised to find that there seemed to be little concern about the excessive aquatic weed growth. I have learned, however, that the perceptions of the problems with eutrophication are highly regionally dependent. If the people of a region has limited experience with algae-free water, they do not know what waters with limited aquatic plant growth are like.

It will be important for CALFED to address the issue of the factors controlling the excessive growth of various types of noxious aquatic weeds in the Delta. It will likely be a combination of nitrogen and phosphorus, with nitrogen most likely limiting although since it is difficult to control nitrogen inputs, it may that phosphorus could be made limiting through appropriately developed control programs, especially if the available nitrogen to phosphorus ratios during peak biomass are close to the stoichiometric composition of algae.

If you or others have questions about this matter, please contact me. Also, please let me know if I can be of help on this issue.

Sincerely yours,


G. Fred Lee, PhD, DEE

Copy to: W. Jennings
V. Connor
L. Snow

GFL:oh
Enclosure

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